

REMARKS

Reconsideration and allowance of this application are respectfully requested.

Claims 41, 45, 49, 50, 53-66 and 69 remain pending in this application.

Applicant thanks Primary Examiner Geckil once again for the courtesies extended its representatives during various telephone interviews.

Applicants also thank the Examiner for his indication of the allowability of claims 41 and 45. By this Amendment, and in response to the Examiner's indication of allowability of claim 41, the remaining pending independent claims have been amended to include subject matter of allowed claim 41, and the claims have been amended, as appropriate, to conform to the included subject matter. No new matter has been added by these amendments, and since each claim now incorporates allowable subject matter, applicants respectfully submit that this application is in condition for allowance.

Entry of these claim amendments is proper because the amended claims place this application in condition for allowance, and the claims do not require a new search and raise no new issues of patentability. The entry of these claims is also proper since the Examiner has only now indicated the allowability of claim 41, and, as noted above, the claim amendments are made in response to that indication.

Litigation Update

Applicants wish to inform the Examiner that in December, a Federal jury found claims 17, 18 and 22 of U.S. Patent 6,108,703 to be invalid as anticipated by U.S. Patent No. 6,185,598, the parent of the present application. Those claims were also found to be obvious in view of the '598 patent. Since the jury found claim 22 of the '703 patent to be invalid as anticipated, claims 19, 20 and 21 (from which claim 22 depends) are also anticipated by the '598 patent.

The '598 patent has exactly the same disclosure as the present application. By finding that the claims are anticipated by the '598 patent, the jury found that the '598 patent (and therefore the present application) discloses every element of the claims.¹

¹ *In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) (A claim is anticipated under section 102 if a prior art reference discloses every element of the claim.); *Perkin-Elmer Corp. v*
(... continued)

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Although applicants have already withdrawn their interference request with respect to the '703 patent and this application, the jury result renders the interference request moot with respect to claims 17-22 of the '703 patent.

Objection under 37 CFR § 1.71 & Rejection under 35 USC § 112

The Examiner objected to the specification under § 1.71 as failing to provide an adequate written description of the invention. The Examiner rejected the claims under 35 USC § 112, first paragraph, for the reasons set forth in his objection to the specification.

The Examiner has argued at length about the difference between the architectures of the '703 patent and the present application. Based on the supposed architectural differences², the Examiner states that the "method claims are drafted according to the '703' patent and thus they do not operate the same way on the applicants architecture and thus they are not enabled." Applicants respectfully disagree about the enablement of the method claims pending in this application. The method claims of the '703 patent have not been limited by the architecture described in that application (regardless of whether or not they should have been) and the method claims pending in this application are not limited to operation of the architecture of the '703 patent.

In any case, this argument is moot since the relevant method claims of the '703 patent have been found invalid by the Federal jury³ and applicants have repeatedly shown support for these claims in the present application. Accordingly, withdrawal of this objection and rejection are respectfully requested.

(... continued)

Computervision Corp., 732 F.2d 888, 894, 221 USPQ 669, 673 (Fed. Cir. 1984), cert. denied, 469 U.S. 857, 225 USPQ 792 (for a claim to be anticipated every element of the claimed invention must be literally present, arranged as in the claim); *Hybritech Inc v Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379, 231 USPQ 81, 90 (Fed. Cir. 1986), cert. denied, 480 U.S. 947, 107 S.Ct. 1606, 94 L.Ed.2d 792 (1987) ("It is axiomatic that for prior art to anticipate under § 102 it has to meet every element of the claimed invention, and that such a determination is one of fact.").

² Applicants amended claims which recited first and second level name servers. However, this was not an acknowledgement, as the Examiner would have it, that their architecture did not support the copied claims.

³ This is consistent with the jury's finding of anticipation. *Paperless Accounting, Inc. v. Bay Area Rapid Transit System*, 804 F.2d 659, 665, 231 USPQ 649, 653 (Fed. Cir. 1986), cert. denied, 480 U.S. 933 (1987) (for anticipation the description must enable a person with ordinary skill in the art not only to comprehend the invention but also to make it).

*Application of Farber et al, 09/612,598*Prior Art Rejections

The Examiner rejected the claims variously under 35 USC §§ 102 and 103 in view of Graber alone and in combination with Bonnaure. Since, as noted above, the claims have all been amended to incorporate allowable subject matter, the prior art rejections are moot and should be withdrawn.

As to the Examiner's assertions that "Applicant is always arguing things that did not exist in the specification, e.g. like the embedded object URLs," applicant respectfully disagrees. The present application refers to embedded objects in a number of places and specifically talks about modifying or rewriting them. E.g., "The rewriter identifies directives, such as embedded images and anchors, containing URLs." *Pg. 31, lines 8-9*, "The process of rewriting URLs will be similar for XML, with some differences in the mechanism that parses the resource and identifies embedded URLs." *Pg. 32, lines 1-3*. The example given by the Examiner of an image tag (on pg. 9 of the Paper No. 30) is precisely an embedded image as described in the present application. Applicants' application describes modifying or rewriting URLs in HTML documents so that the URLs resolve to the repeater servers instead of the origin servers. The specification talks specifically (and in great detail) about HTML documents and rewriting HTML resources (e.g., "Rewriting HTML Resources" at pg. 30 *et seq.*).

However, in view of the Examiner's objection to the specific term "tagging", the claims have been amended, where appropriate, to recite "modifying" instead of "tagging".

Applicants again thank the Examiner for his indication of the allowability of claims 41 and 45. As noted above, by this Amendment, the remaining pending claims have been amended to include subject matter of allowed claim 41.

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Applicant respectfully submits that this application is in condition for allowance and an early Action to that effect is earnestly solicited. Applicant seeks an early allowance and expedited issuance of this application.

Should the Examiner believe that an interview would resolve any outstanding issues relating to this application, or should there be any questions or concerns regarding this application, the Examiner is kindly requested to telephone the undersigned.

Respectfully submitted,

By



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APPENDIX SHOWING CHANGES MADE TO CLAIMS

APPENDIX SHOWING CHANGES MADE TO CLAIMS:

49. (Twice Amended) In a distributed hosting framework operative in a computer network in which users of client machines connect to an origin server, wherein the framework includes: (A) a set of repeater servers, distinct from the origin server, for hosting at least some of the embedded objects of web pages that are normally hosted by the origin server; (B) a repeater server selector mechanism constructed and adapted to identify, for a particular client machine, an appropriate repeater server from the set of repeater servers; and (C) a routine for modifying at least one embedded object URL of a web page to resolve to a server in the set of repeater servers instead of to the origin server; a [A] method of serving a page and an associated page object, wherein the page is stored on [an] ~~the~~ origin server and copies of the page object are stored on [a] ~~the~~ set of repeater servers [distinct from the origin server], the method comprising:

- (a) modifying a URL for the page object to designate a repeater server instead of the origin server;
- (b) serving the page from the origin server with the modified URL;
- (c) responsive to a browser query to resolve to the designated repeater server, identifying a given one of the set of repeater servers from which the object may be retrieved; and
- (d) returning to the browser an address of the identified repeater server to enable the browser to attempt to retrieve the object from that server.

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53. (Twice Amended) In a distributed hosting framework operative in a computer network in which users of client machines connect to an origin server, wherein the framework includes: (A) a set of repeater servers, distinct from the origin server, for hosting at least some of the embedded objects of web pages that are normally hosted by the origin server; (B) a repeater server selector mechanism constructed and adapted to identify, for a particular client machine, an appropriate repeater server from the set of repeater servers; and (C) a routine for modifying at least one embedded object URL of a web page to resolve to a server in the set of repeater servers instead of to the origin server: a [A] content delivery service, comprising:

replicating a set of page objects across the set of repeater [a wide area network of] servers, wherein the set of repeater servers are managed by a domain other than an origin server domain;

for a given page normally served from the origin server domain, [tagging] modifying at least some [the] embedded objects of the page so that requests for the page objects resolve to the repeater domain instead of the origin server domain;

responsive to a request for the given page received at the origin server domain, serving the given page from the origin server domain; and

serving at least one embedded object of the given page from a given server in the repeater server domain instead of from the origin server domain.

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54. (Twice Amended) The content delivery [method] service as described in claim 53 wherein the serving [step] comprises:

for each embedded object, identifying one or more servers from which the embedded object may be retrieved.

55. (Twice Amended) The [method] service as described in claim 54 wherein an identified server is selected from a set of repeater servers based on data identifying a requesting user's location.

56. (Twice Amended) The [method] service as described in claim 55 wherein an identified server is selected from a set of repeater servers based on data identifying a requesting user's location and on data identifying current costs between a group containing the requesting user and the set of repeater servers.

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57. (Twice Amended) In a distributed hosting framework operative in a computer network in which users of client machines connect to an origin server, wherein the framework includes: (A) a network of repeater servers, distinct from the origin server, for hosting at least some of the embedded objects of web pages that are normally hosted by the origin server; (B) a repeater server selector mechanism constructed and adapted to identify, for a particular client machine, an appropriate repeater server from the network of repeater servers; and (C) a routine for modifying at least one embedded object URL of a web page to resolve to a server in the repeater server network instead of to the origin server; a [A] method for Internet content delivery, comprising:

at [an] the origin server, modifying at least one embedded object URL of a page to designate [a] the repeater server network instead of a server normally used to retrieve the embedded object;

responsive to a request for the page issued from a client machine, serving the page with the modified embedded object URL to the client machine from the origin server;

responsive to a request for the embedded object, resolving the modified URL to an address of a server in the repeater server network [other than the origin server,] that is not overloaded; and

attempting to serve the embedded object to the client from the server in the repeater server network.

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60. (Twice Amended) The method as described in claim 57 further comprising:

identifying a subset of repeater servers that may be available to serve the embedded object based on a location of the client machine and data identifying current costs between a group containing the requesting client machine and a set of repeater servers; and

identifying the repeater server from the subset of repeater servers.

61. (Twice Amended) In a distributed hosting framework operative in a computer network in which users of client machines connect to an origin server, wherein the framework includes: (A) a network of repeater servers, distinct from the origin server, for hosting at least some of the embedded objects of web pages that are normally hosted by the origin server; (B) a repeater server selector mechanism constructed and adapted to identify, for a particular client machine, an appropriate repeater server from the set of repeater servers; and (C) a routine for modifying at least one embedded object URL of a web page to resolve to a server in the set of repeater servers instead of to the origin server; a [A] content delivery method, comprising:

distributing a set of page objects across [a] the network of repeater servers, wherein the network of repeater servers are managed by a domain other than an origin server domain;

for a given page normally served from the origin server domain, modifying [tagging] at least some of the embedded objects of the page to designate a repeater server domain so that requests for the objects resolve to the repeater server domain instead of the origin server domain; and

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in response to a client request for an embedded object of the page:

returning to the client an address of a given one of the repeater servers within the repeater domain that is likely to host the embedded object and that is not overloaded.

62. (Twice Amended) In a distributed hosting framework operative in a computer network in which users of client machines connect to an origin server, wherein the framework includes: (A) a set of repeater servers, distinct from the origin server, and in a second domain distinct from an origin server domain for hosting at least some of the embedded objects of web pages that are normally hosted by the origin server; (B) a repeater server selector mechanism constructed and adapted to identify, for a particular client machine, an appropriate repeater server from the set of repeater servers; and (C) a routine for modifying at least one embedded object URL of a web page to resolve to a server in the set of repeater servers instead of to the origin server; a [A] content delivery method, comprising:

[tagging] causing an embedded object in a page to resolve to [a] the second domain other than an origin server domain by rewriting a URL supplied by the origin server to generate a different resource locator which designates a repeater server in the second domain instead of the origin server;

serving the page with the different resource locator from the origin server;

resolving the different resource locator to identify a repeater server in the second domain; and

serving the embedded object from the identified repeater server.

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64. (Amended) In a distributed hosting framework operative in a computer network in which users of client machines connect to an origin server, wherein the framework includes: (A) a set of repeater servers, distinct from the origin server, and in a second domain distinct from an origin server domain for hosting at least some of the embedded objects of web pages that are normally hosted by the origin server; (B) a repeater server selector mechanism constructed and adapted to identify, for a particular client machine, an appropriate repeater server from the set of repeater servers; and (C) a routine for modifying at least one embedded object URL of a web page to resolve to a server in the set of repeater servers instead of to the origin server; an [An] Internet content delivery method, comprising:

for an embedded object in a page, where the embedded object is referenced by a uniform resource locator (URL) which references the [an] origin server domain, causing the URL to resolve to the [a] second domain;

serving the page from the origin server; and

serving the embedded object from a server in the second domain.

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65. (Amended) In a distributed hosting framework operative in a computer network in which users of client machines connect to an origin server, wherein the framework includes: (A) a network of repeater servers, distinct from the origin server, for hosting at least some of the embedded objects of web pages that are normally hosted by the origin server; (B) a repeater server selector mechanism constructed and adapted to identify, for a particular client machine, an appropriate repeater server from the set of repeater servers; and (C) a routine for modifying at least one embedded object URL of a web page to resolve to a server in the set of repeater servers instead of to the origin server; a [A] content delivery service, comprising:

replicating a set of page objects across [a] the network of repeater servers;

for a given page normally served from [an] the origin server, [tagging] modifying at least one embedded object of the page so that requests for the page object resolve to one of the repeater servers instead of to the origin server,

responsive to a request for the given page received at the origin server, serving the given page from the origin server; and

serving at least one embedded object of the given page from a repeater server instead of from the origin server.

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69. (Amended) In a distributed hosting framework operative in a computer network in which users of client machines connect to an origin server, wherein the framework includes: (A) a wide area network of repeater servers, distinct from the origin server, for hosting at least some of the embedded objects of web pages that are normally hosted by the origin server; (B) a repeater server selector mechanism constructed and adapted to identify, for a particular client machine, an appropriate repeater server from the set of repeater servers; and (C) a routine for modifying at least one embedded object URL of a web page to resolve to a server in the set of repeater servers instead of to the origin server; a [A] content delivery service, comprising:

replicating a set of page objects across [a] the wide area network of repeater servers;

for a given page normally served from [an] the origin server, [tagging] modifying at least one embedded object of the page so that requests for the page objects resolve to one of the repeater servers instead of to the origin server;

in response to a request for the given page received at the origin server, causing the given page to be served from the origin server; and

serving at least one embedded object of the given page from a repeater server instead of from the origin server.